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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BATES, KEVIN T

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/694,297	<b>Applicant(s)</b> ZOMBEK ET AL.	
	<b>Examiner</b> KEVIN BATES	<b>Art Unit</b> 2456	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 5) ☒ Claim(s) 1-23 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-23 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)<br>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12-14-2011</u> | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date ____<br>5) <input type="checkbox"/> Notice of Informal Patent Application<br>6) <input type="checkbox"/> Other: ____ |
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***Response to Amendment***

This Application is in response to a communication made on November 21, 2011.

The Information Disclosure Statement filed December 14, 2011 has been considered.

Claims 1-23 are pending in this application.

***Response to Arguments***

Applicant's arguments filed November 21, 2011 have been fully considered but they are not persuasive.

The applicant argues that one of ordinary skill would have not modified Ramasubramni's system to enable the internal message router to route messages from a client to an external server. See remarks, pp. 8-9.

Ramasubramni teaches that the system (see Fig. 6) includes a network gateway which routes messages from clients (elements 202, 204) towards physical application servers (elements 218 and 220). Ramasubramni further teaches the gateway functions to convert the messages from the carrier networks into an HTTP format that is able to be transferred over the Internet network (Fig. 12A). Ramasubramni teaches that the network gateway includes an internal router operates to forward the received messages from the client to processes of the gateway (See Fig. 13; Fig. 21). Ramasubramni fails to explicitly address how the messages sent from the carrier networks get routed through the network gateway and get addressed to the external application servers over the Internet. The examiner has asserted that it would be obvious to one of ordinary skill

in the art that those messages are additionally routed through the internal message router and addressed to the external application servers. The applicant asserts jump in logic based on the Ramasubramni is not possible. See remarks, p. 9. Ramasubramni clearly intended the network gateway to forward messages from the client networks to the application servers and has only taught the functionality of the internal message router as the means to address and route messages. Additionally, it is clear the network gateway is programmed to change the format of messages from the protocol unit of the carrier network into the http protocol of the Internet. One of ordinary skill in the art only needs to recognize that certain messages that get passed through the internal gateway need to get addressed (based on the routing table) to the external application server. As result, when a message gets routed towards the external application server, the gateway has already been disclosed to have the appropriate ability and programming to perform the necessary protocol handling.

The applicant argues that Sasamoto does not explicitly indicate establishing a connection between a message router and at least one server based on an indirect message router table mapping a message key, including at least one of a service type and a message ID. See remarks, p 8-14.

The examiner disagrees. The examiner has not relied solely upon the teaching of Sasamoto to teach the entire listed limitation. Ramasubramani provides a teaching that an indirect message routing table which maps client connections to destinations based on the service type of the client request. See Col. 17, ll. 34-43. Sasamoto is being relied upon to provide a teaching which multiple registered routers are used to

keep TCP connections between gateways and routers for mobile clients. See Col. 5, ll. 29-65; Col. 1, ll. 14-20. So Sasamoto is not being relied upon to teach the entire limitation as argued by the application, Sasamoto only improved the teaching of Ramasubramani to improve Ramasubramani's system to allow multiple routers managing TCP connection to permit the effective handoff of mobile devices as taught in Sasamoto.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-7, 11-19, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramasubramani (6507589) in view of Barzegar (5894478), and in further view of Sasamoto (6647264).**

**Regarding claims 1 and 13,** Ramasubramani discloses a messaging system, comprising:

at least one protocol gateway (Column 5, lines 42 – 48; Column 15, lines 1 – 12) to establish and manages a network connection with at a network (Column 9, lines 26 – 30); mapping a message key, including at least one of a service type and a message identification (ID) to at least one server (Col. 6, lines 33 - 39) and

a communicator to communicate, based on at least one of said service type and said message ID included with said message key (Col. 6, ll. 33-39), a mapped message between said client and a particular server supporting said message key (Col. 6, lines 33 – 39, where the message key can be a service type) over a wireless network protocol through said protocol gateway (Column 12, lines 37 – 45).

Ramasubramani does not explicitly indicate that the protocol gateway uses an indirect message router table to direct the messages to an IP address of said server or that the network (Figure 2, element 216) includes a registered message router, having a TCP connection with the message router.

Ramasubramani suggests that the internal message router of the gateway utilizes an indirect message routing table to route messages received from the client (Col. 17, ll. 11 – 14) wherein the processes are designed to be indirectly addressed based on type of service of the message rather than directly addressed (Col. 17, ll. 34 – 43).

One of ordinary skill in the art at the time the invention was made would know that the external server processes of Ramasubramani (see Col. 6, ll. 33 – 39) can be addressed by the internal message router in the same way as the internal processes because Ramasubramani is silent as to how the external servers are addressed and the indirect message routing allows the client to transparently (and with load balancing) be directed to the proper server for the desired service.

Barzegar teaches a system with a protocol gateway that establishes connections through a message router (Column 3, lines 56 – 58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Barzegar's teaching of message authentication to increase the security of the system and prevent unauthorized requests.

Sasamoto teaches a system for routing messages between gateways and message routers (Fig 1, elements 111 and 114) in which the gateway manages TCP/IP connections between the router and the gateway, and which the router is registered within a router table of the gateway (Col. 5, lines 29 - 65; Col. 1, lines 14 - 20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve the system, by adding in Sasamoto's system to allow the gateway to monitor and watch which router to forward messages to allow mobile devices to receive messages despite handoffs and movement by those devices.

**Regarding claims 2 and 14**, Ramasubramani discloses the messaging system according to claims 1, 13, and 24, wherein at least one message router for routing said message between said protocol gateway and said server (Column 23, line 64 – Column 24, line 3).

**Regarding claims 3 and 15**, Ramasubramani discloses the messaging system according to claims 2 and 14.

Ramasubramani does not explicitly indicate said at least one registered message router further comprises means for authenticating an origin of said message.

Barzegar teaches a system with protocol gateways and a message router where the message router is programmed to authenticate messages based on who sent them (Column 3, lines 56 – 58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Barzegar's teaching of message authentication to increase the security of the system and prevent unauthorized requests.

**Regarding claims 4 and, 16,** Ramasubramani discloses the messaging system according to claims 3 and 15.

Ramasubramani does not explicitly indicate that the authenticating means authenticates said origin before said message is routed by said at least one registered message router.

Barzegar teaches a system with protocol gateways and a message router where the authenticating means authenticates said origin before said message is routed by said message router (Column 3, lines 56 – 58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Barzegar's teaching of message authentication to increase the security of the system and prevent unauthorized requests.

**Regarding claims 5 and 17,** Ramasubramani discloses that there is a database accessible by said message router and adapted to store information relating to routing and authentication of said message (Column 24, lines 19 – 24).

**Regarding claims 6 and 18,** Ramasubramani discloses the messaging system according to claims 1, 13, and 24, further comprising an HTTP proxy server adapted to receive a plurality of HTTP requests from said client device, send each said request over an Internet to said server, and transmit a response corresponding thereto from said server to said client device (Column 5, lines 44 – 47; Column 12, lines 37 – 45).



**Regarding claims 7 and 19**, Ramasubramani the messaging system according to claims 6 and 18, wherein: the HTTP proxy server is adapted to support one or more HTTP protocols (Column 12, lines 37 – 45).

**Regarding claims 11 and 22**, Ramasubramani discloses the messaging system according to claims 1 and 13, further comprising there is a means for supporting a message retry in each of a plurality of wireless network protocols (Column 7, lines 30 – 33).

**Regarding claims 12 and 23**, Ramasubramani discloses the messaging system according to claims 1 and 13, further comprising there is a means for supporting a message ACK/NACK service in each of a plurality of wireless network protocols (Column 7, lines 30 – 33).

**Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramasubramani in view of Barzegar, and Iwama and in further view of Boyle (6119167).**

**Regarding claims 8 and 20**, Ramasubramani discloses the messaging system according to claims 6 and 18.

Ramasubramani does not explicitly indicate that the HTTP proxy server comprises: means for creating a TCP/IP socket connection; and means for managing said TCP/IP socket connection.

Boyle '167 teaches a wireless protocol gateway and http proxy that creates a TCP/IP socket connection; and manages said TCP/IP socket connection (Column 3, lines 27 – 40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Boyle's teaching of the TCP/IP connection Ramasubramani's system in order to have a TCP/IP connection to connectionless wireless protocols.

**Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramasubramani in view of Barzegar, and Sasamoto and in further view of Kung (6826173).**

**Regarding claim 9**, Ramasubramani discloses the messaging system of claim 1. Ramasubramani does not explicitly indicate that there is an SNMP manager.

Kung discloses a system with a multiple protocol gateways that communicate using SNMP communication (Column 13, lines 5 – 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Kung's in Ramasubramani's system in order to allow the management service of the messaging system send commands to other devices in the system using the common SNMP protocol from an SNMP manager.

**Claims 10 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramasubramani in view of Barzegar, and Sasamoto and in further view of Boyle (6138158).**

**Regarding claims 10 and 21**, Ramasubramani discloses the messaging system according to claims 1 and 13.

Ramasubramani does not explicitly indicate that the system is further comprising: means for defining a maximum segment size; means for determining if said message

exceeds said maximum segment size; and means for segmenting said message into a plurality of message segments, none of said plurality of message segments exceeding said maximum segment size.

Boyle '158 teaches a messaging system (Column 8, line 52 – Column 9, line 2) that includes defining a maximum segment size; means for determining if said message exceeds said maximum segment size; and means for segmenting said message into a plurality of message segments, none of said plurality of message segments exceeds said maximum segment size (Column 13, lines 37 – 48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Boyles teaching of breaking up messages in Ramasubramani's system because some of the messaging protocols may only be able to support a maximum message size and Boyles system allows long messages to be broken up to the max size and transferred.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN BATES whose telephone number is (571)272-3980. The examiner can normally be reached on M-F 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KEVIN BATES/  
Primary Examiner, Art Unit 2456